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(54) BLADE ARRANGEMENT OF ROTARY MACHINE

(57) Abstract:

PURPOSE: To reduce vibration stress in blades in the vicinity of the rated rotary speed by disposing in a group of blades in a steam turbine, groups of blades spaced in a circumferential direction and having a intrinsic vibration frequency selected in relation to other groups of blades.

CONSTITUTION: Blades are studded in the circumference of a steam turbine rotor 2. Blade groups 11 are made to titanium, and blade groups 12W14 are made of 12 chrome steel. In relation to the blade groups 11, a range of plus or minus 10% is selected, and a spaced arrangement is made on the rotor 2. Thus, the vibration level of the node diametric mode having a high vibration can be reduced in the vicinity of the rated rotary speed.

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